

REMARKS

Applicants appreciate the courtesies extended to their representative, Allan Fanucci, by Examiner Leslie Wong during an interview on January 27, 2005. The comments appearing herein are substantially the same as those that were presented and discussed during the interview.

Claims 1-18 and 20-25, as amended, appear in this application for the Examiner's review and consideration. A numbering error was noticed wherein claims 22-25 were inadvertently numbered as claims 23-26. The numbering of the claims and their dependencies, as necessary, have been corrected in this amendment.

Claim 1 has been amended to recite that the aroma-containing component that is treated is one that is isolated, concentrated or separated from a food, beverage, food-forming or beverage-forming material, and that, when combining the aroma-containing component with the material to form the product for consumption, the aroma-containing component imparts to the product an improved or enhanced aroma compared to the aroma provided by an untreated aroma-containing component. These changes are supported by the first paragraph of the detailed description wherein the term "aroma-containing component" is defined. As no new matter has been introduced, the entry of these claim changes at this time is warranted. As these amendments are being made simply to clarify the invention, it is respectfully submitted that their entry at this time is appropriate. Furthermore, the entry of these changes should place the claims in condition for allowance.

The claims were again rejected over either of Reich US patent 3,421,906 or Belrhliid et al. ("Belrhliid") European patent application 963,706 for the reasons set forth on pages 2-3 of the action.

Applicants expressly adopt and incorporate herein the comments provided in their prior response regarding these references. In addition, as explained during the interview, the present claims recite a method for preparing an aroma-containing component which releases an aroma having increased amounts of desirable flavor or sensory characteristics during preparation of a food or beverage product which results from treating the aroma-containing component with an aroma-improving agent and storing the treated aroma-containing component prior to contact with a further component to form a food or beverage product. The treated component is typically a compound that is added to a food or beverage prior to consumption. The present invention is not the simple addition of a treating or aroma-improving agent to a foodstuff, but instead relates to the treatment of a component of the

foodstuff that provides an aroma. By itself, the aroma-containing component is insufficient to form a food or beverage, but instead is an additive to the food or beverage when forming such products. This component is treated against degradation and the treated component is separately stored so that the component can maintain the ability to impart desirable flavor or sensory characteristics of the aroma to the food, beverage, food-forming or beverage-forming material when forming a product for consumption. By adding a treated component during preparation and preferably immediately prior to consumption, the resultant product contains an improved or enhanced aroma compared to one prepared with an untreated aroma-containing component.

In contrast, Reich discloses a method for treating roasted coffee to avoid staling. That method includes the treatment of coffee with sulfur dioxide or a salt that releases sulfur dioxide in combination with ammonia to remove acrid sulfur dioxide odors. This treatment is performed to stabilize coffee flavor and aroma so that without introducing objectionable aromas or odors. This results in the retention of the desirable coffee flavors and aromas while also preventing staling of the coffee during packaging and storage. To do this, Reich adds sulfur dioxide vapor directly to the coffee, such as by introducing it into the grinding chamber of the mill used to grind roast coffee either along with or preceded by a stream of ammonia. Thereafter, Reich subjects the treated coffee to carbon dioxide stripping to remove the sulfur dioxide and ammonia vapors before packaging the treated product.

The present invention, as defined in claim 1, is patentable over Reich because Reich does not disclose the separate storage of a treated aroma-containing component prior to contact with a further component to form a food or beverage product. Instead, Reich either (1) combines a treating agent such as sulfur dioxide with the ground coffee to treat it, but does *not* form a beverage or food product from a treated aroma-containing component until after storage, or (2) treats the coffee and then *removes* the agent prior to packaging. Even when Reich discloses the treatment of a component such as coffee oil, he does not teach that the treated component should be separately stored. Instead, the treated coffee oil is added to the coffee product and is stored together until usage. These situations are not covered by the claims of the present invention. Instead, the present invention provides significant improvements in the aroma of the resulting product by treating the aroma-containing component with an aroma-improving agent and then storing it separately from food, beverage, food-forming or beverage-forming materials until a product is prepared for consumption. Thus, when a beverage or food is formed with the treated aroma-containing ingredient, an

improved and enhanced aroma is obtained in the product compared to products prepared with an untreated aroma-containing component or to products that are stored together with a treated aroma-containing component.

In coffee, for example, conventional non-treated or non-stabilized coffee aroma contain amounts of methane thiol and pyrrole that typically degrade or diminish to almost undetectable levels over the course of several months when the components are stored at room temperature. Even if the treating agent is added to the final product that contains a non-treated aroma providing component, these volatiles are substantially degraded because the treating agent is added to the whole food matrix and is integrated therewith so that less of it is available to interact with the aroma-containing component. In contrast, the treated aroma-containing components of the invention are separately stored so that they possess a significantly reduced degradation profile compared to the conventional components. For example, methane thiol and pyrrole levels remain at more than 30% of the initial levels after storage at ambient temperature over a period of at least 6 months. This enables the component to impart enhanced amounts of those compounds into the beverage product when it is formed, so that the beverage has a fresher taste and flavor.

Claims 12, 16-18, 23 and 26 are further patentable over Reich since the specific treated aroma-containing ingredients of those claims are not disclosed in Reich. As noted above, Reich does have a treating agent in contact with ground coffee at one point in the process, but he either does not use that combination to form a beverage for consumption or he separates out the treating prior to packaging the coffee which is later used to make a beverage for consumption.

Claim 14 is patentable over Reich for the same reasons as claim 1. In addition, Reich does not disclose a food provided by a food, beverage, food-forming or beverage-forming material and the previously described treated aroma-containing component, wherein the treated aroma-containing component is stored separately from the other material. As noted, Reich removes the treating agent from the product prior to storage, whereas applicants store the treated component separately from the food or beverage forming component prior to formation of the product so that, upon preparation, the unexpected advantages in flavor and aroma can be achieved. Thus, all rejections based on Reich have been overcome and should be withdrawn.

As to the Belrhliid reference, applicants note that it is simply not relevant to the present claims because it has no disclosure of any treating agent. Instead, Belrhliid discloses sulfur

containing precursors that can be added to a food or beverage to generate flavoring components when heated. As noted, the simple addition of compounds to foodstuffs is not what is disclosed or claimed in the present invention. Belrhld does not disclose that an aroma-improving agent is present with the aroma-containing component and that it is stored separately prior to combining the treated aroma-containing component with a further component of a food, beverage, food-forming or beverage-forming material and optionally with a liquid to form a product for consumption. Instead, Belrhld discloses a precursor mixture of flavorings that generate a grilled note (or similar flavors) when heated. The present invention is instead directed at providing significant improvements in the *aroma* of the resulting product by maintaining the treated aroma-containing ingredient (i.e., the combination of the aroma-improving agent and the aroma-containing ingredient) during packaging and storage so that, when a beverage or food is formed with the treated aroma-containing ingredient, improved and enhanced aroma is obtained in the product compared to products prepared with an untreated aroma-containing component. One of ordinary skill in the art would recognize the difference between the use of a flavoring agent for taste improvement compared to the treatment of an aroma-containing ingredient to provide aroma improvement, so that the rejection over Belrhld has been overcome and should be withdrawn.

In addition, claims 12, 16-18, 23 and 26 are further patentable over Belrhld since the specific treated aroma-containing ingredients of those claims are not disclosed in Belrhld. Belrhld simply does have a treating agent in contact with coffee, tea, malt or the other aroma-containing components recited in those claims.

Claim 14 is also patentable over Belrhld. Belrhld does not disclose a food made by a food, beverage, food-forming or beverage-forming material and the previously described treated aroma-containing component wherein the treated aroma-containing component is separately stored from the material until the combination is to be used to prepare a food or beverage product for consumption. As noted, Belrhld is not concerned with the treatment of an aroma and instead is concerned with flavor modification when heat is added to a product. In contrast, applicants provide a combination where a separately treated and stored aroma-containing component is provided with a food or beverage forming component so that, upon preparation, unexpected advantages in aroma can be achieved. When aroma-containing components such as coffee aroma are treated as taught by the present invention, significant benefits are achieved as explained above and as further explained in the specification. In view

of the preceding, it is respectfully submitted that all rejections based on Belrhld have been overcome and should be withdrawn.

Accordingly, the entire application is now believed to be in condition for allowance, early notice of which would be appreciated. Should the Examiner not agree that all claims are patentable, then a personal or telephonic interview is respectfully requested to discuss any remaining issues in order to expedite the eventual allowance of this application.

Respectfully submitted,

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Date

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